PO Job Risk Assessment

Name(s) of Risk Team Members: E. Baker, J. Cracco, C. Donahue, W. Smith, R. Gill (facilitator)	**Point Value → Parameter ↓**	**1**	**2**	**3**	**4**	**5**
Job Title: Plastic scintillator fabrication **Job Number or Job Identifier: PO-JRA-002**	**Frequency (B)**	**≤once/year**	**≤once/month**	**≤once/week**	**≤once/shift**	**>once/shift**
Job Description: Construction, assembly and testing of plastic scintillator detectors and light guides.	**Severity (C)**	**First Aid Only**	**Medical Treatment**	**Lost Time**	**Partial Disability**	**Death or Permanent Disability**
Training and Procedure List (Optional):	**Likelihood (D)**	**Extremely Unlikely**	**Unlikely**	**Possible**	**Probable**	**Multiple**
Rev. #: **0** Date: **December 14, 2005**						
Stressors (if applicable, please list all):		**Reason for Revision (if applicable):**			**Comments:**	

				Before Additional Controls						**After Additional Controls**					
Job Step / Task	**Hazard**	**Control(s)**	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**Control(s) Added to Reduce Risk**	**Stressors Y/N**	**# of People A**	**Frequency B**	**Severity C**	**Likelihood D**	**Risk* AxBxCxD**	**% Risk Reduction**
Cut/machine plastic to size/shape using band/table saw	Cut by sharp object	Machine guards, machine maintenance, gloves, training	N	1	3	3	2	18								
	Eye injury from chips	Machine guards, machine maintenance, safety glasses, training	N	1	3	2	3	18								
Polishing scintillators/light guides	Repetitive motion	Use automated equipment, rotate work with other jobs, ergonomic review	N	1	3	1	1	3								

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Polishing scintillators/light guides (cont'd)	Struck by object ejected while using power buffer	Machine guards, safety glasses, safety shoes, adequately secure scintillators/light guides during polishing operation	N	1	1	1	2	2								
	Electrical shock while wet polishing	Double insulated power tools, GFCI protection, inspection of tools prior to use	N	1	2	1	1	2								
Cleaning plastics with solvent	Chemical toxicity/sensitivity	Limit amount and type of solvent used, disposable gloves, work in hood if large number being produced, MSDS, training	N	1	2	1	1	2								
	Combustion of solvent	Limit amount and type of solvent used, keep ignition sources clear, MSDS, training	N	1	2	1	1	2								
Mixing epoxy/glue	Chemical toxicity/sensitivity	Limit amount and type of glue, disposable gloves, MSDS, training	N	1	2	1	1	2								
Epoxy or glue scintillator to light guide	Chemical toxicity/sensitivity	Limit amount and type of glue, disposable gloves, MSDS, training	N	1	2	1	1	2								
Join scintillator to phototube with epoxy, glue or optical grease	Chemical toxicity/sensitivity	Limit amount and type of glue or grease, disposable gloves, MSDS, training	N	1	2	1	1	2								
Wrap detector with light-tight foil and tape	Cut with sharp object (scissors, razor blade) while cutting materials	Gloves, use of appropriate hand tools (i.e.; self-retracting razor knife)	N	1	2	2	1	4								

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Wrap detector with light-tight foil and tape (cont'd)	Repetitive motion	Ergonomic work bench layout, rotate work with other jobs, ergonomic review	N	1	2	2	1	4								
Test detector	Electrical shock from high voltage supply	Connections made with power off, use of safety-designed cables and connectors, training	N	1	2	2	1	4								
	Radiation exposure from radioactive source	Training, use of low-level sources, source control rules, RCD support	N	1	2	1	1	2								
	Radioactive contamination from broken source	Training, use of low-level sources, source control rules, RCD support	N	1	2	1	1	2								
Further Description of Controls Added to Reduce Risk:																

***Risk:**	**0 to 20 Negligible**	**21 to 40 Acceptable**	**41 to 60 Moderate**	**61 to 80 Substantial**	**81 or greater Intolerable**